

Remarks:

These remarks are responsive to the Office action dated July 31, 2008. Prior to entry of this response, claims 9, 12-14, 20-24, and 26 were pending in the application. By way of this response, claim 9 is amended. Applicants respectfully request reconsideration of the application and allowance of the pending claims.

Examiner Interview

Applicants thank the Examiner for the courtesy extended during the July 17, 2008 interview. In the interview the attorney discussed whether the finality of the final Office action mailed on July 9, 2008, was proper, since there were no amendments in the claims. The Examiner agreed with the attorney and clarified that the last Office action should have been a non-final instead of a final action. Accordingly, the time period was restarted.

Allowable Subject Matter

Claims 20-24 and 26 are allowed. Applicants thank the Examiner for the indication of allowable subject matter.

Formal Matters

Independent claim 9 has been amended to correct a lack of antecedent basis. No new matter is added by the amendment.

Rejections under 35 U.S.C. § 103

Claims 9 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,553,961 (Hammoud et al. hereinafter Hammoud) in view of U.S. Patent No. 3,884,207 (Kuehn, III hereinafter Kuehn) and further in view of U.S. Patent No. 6,631,067 (Newton et al. hereinafter Newton).

The Office action cites Hammoud, Kuehn, and Newton, in combination, as disclosing each and every feature of independent claim 9. In particular, the Office action cites col. 5, line 5 – col. 6, line 6 of Newton as disclosing the feature, “wherein said converter is adapted to be coupled to a plurality of engine cylinder valves and the charge

balance is maintained by disabling at least some of the plurality of cylinders in natural charge sharing pairs.”

However, Applicants have reviewed Newton in detail and can find no disclosure of a converter that is adapted to be coupled to a plurality of engine cylinder valves and so that the charge balance is maintained by disabling at least some of the plurality of cylinders in natural charge sharing pairs. Rather, Newton discloses an amplifier circuit 50 having multiple switches Q1 and Q2 that may be opened or closed in various combinations to control operation of a single actuator coil 36 in different charging modes (e.g., boost, hold, rapid current increase, rapid current decrease). Newton only controls capacitor charge through operation of a single actuator coil connected to the amplifier circuit and provides no teaching or suggestion of operating the amplifier circuit with consideration for maintaining charge balance through operation of multiple actuator coils.

Furthermore, Newton discloses an amplifier circuit similar to the circuit configuration shown in FIG. 2 of the subject application which Applicants admit is prior art. In particular, both circuits employ multiple switches to control a single actuator coil. Applicants recognize that these configurations may create a significant added cost for an engine with electromechanically actuated valves, even if not all valves are electrically powered. Further, not only would these converter approaches require significant numbers of devices, but would also increase wiring and harness costs, since two wires are required per actuator coil.

The Office action admits, at page 3, that Kuehn does not disclose that the converter is adapted to be coupled to a plurality of engine cylinder valves and the charge balance is maintained by disabling at least some of the plurality of cylinders in natural charge sharing pairs. Furthermore, Hammoud does not cure the deficiencies of Newton and Kuehn.

Thus, even in combination, Hammoud, Kuehn, and Newton do not disclose each and every feature of independent claim 9. Therefore, Applicants respectfully request the rejection of independent claim 9 under 35 U.S.C. 103(a) be withdrawn for at least the reasons discussed above. Claims 12-14 depend from claim 9. Thus, Applicants respectfully request the rejection of these claims be withdrawn for at least the reasons discussed above.

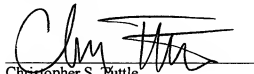
Conclusion

Applicants believe that this application is now in condition for allowance, in view of the above amendments and remarks. Accordingly, Applicants respectfully request that the Examiner issue a Notice of Allowability covering the pending claims. If the Examiner has any questions, or if a telephone interview would in any way advance prosecution of the application, please contact the undersigned attorney of record.

Please charge any cost incurred in the filing of this Response, along with any other costs, to Deposit Account No. 06-1510.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'Chris Tuttle', is written over a horizontal line.

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